

REMARKS

This is a full and timely response to the non-final Official Action mailed July 13, 2004 (Paper No. 20040708). Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

By the forgoing amendment, the specification and various claims have been amended. Additionally, new claims 53-61 have been added and original claims 49-52 have been cancelled. Claims 11-19, 23 and 24 were cancelled previously. Thus, claims 1-10, 20-22, 25-48 and 53-61 are currently pending for the Examiner's consideration.

The outstanding Office Action objected to the specification and claims 46-48 due to minor informalities. Accordingly, the issues raised by the Office Action have been reviewed and addressed in the present amendment. Following entry of this amendment, the specification and claims 46-48 are believed to be in proper form and not subject to further objection. Notice to this effect is respectfully requested.

Claims 1, 3-7, 9-10, 20-22, 25-33 and 49-52 were rejected under the doctrine of double patenting in view of U.S. Patent Application No. 10/218,272, now U.S. Patent No. 6,789,864. Consequently, claims 49-52 have been cancelled herein, rendering moot the double patenting rejection applied to those claims.

With regard to the remaining claims, Applicant has filed herewith a terminal disclaimer of the present application with regard to the term of U.S. Patent No. 6,789,864. Thus, the remainder of the double patenting rejection should now be reconsidered and withdrawn.

No other rejection or objection was made in the Action with regard to claims 3, 4, 20-22 and 25-33. Consequently, following entry of the terminal disclaimer filed herewith, claims 3, 4, 20-22 and 25-33 should be in condition for immediate allowance, and notice to that effect is respectfully requested.

With regard to the prior art, claims 1, 2, 7-10, 34, 37-42, 46 and 47 were rejected as anticipated under 35 U.S.C. § 102(b) by EP 0 985 537 to Matsumoto ("Matsumoto"). For at least the following reasons, this rejection is respectfully traversed.

Claim 1 recites:

A method of printing cartridge maintenance comprising:
recording printing history data for said printing cartridge in a memory device
on said printing cartridge with a controller also disposed on said printing cartridge,
reading said printing history data from said memory device, and
refilling at least a portion of said printing cartridge if usage of said cartridge,
as determined from said printing history data, does not exceed a predetermined
threshold.
(emphasis added).

Similarly, independent claim 46 recites:

A method of making a printing cartridge comprising:
disposing a memory device on said printing cartridge for storing printing
history data;
providing a controller on said printing cartridge configured to write said
printing history data to said memory device; and
storing a predetermined usage threshold in said memory device on said
printing cartridge such that a remaining useful life of said printing cartridge can be
determined by comparing said predetermined usage threshold and printing history data
stored on said memory device.
(emphasis added).

In contrast, Matsumoto does not teach or suggest a controller disposed on a printing cartridge with which printing history data is written to a memory device also on the cartridge.

Support for this subject matter can be found in Applicant's specification as originally filed at, for example, paragraph 0061 and Fig. 4.

"A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. As noted, Matsumoto does not each or suggest a controller disposed on a printing cartridge for recording printing history data. Therefore, for at least this reason, the rejection of claims 1-10 and 46-48 based on Matsumoto should be reconsidered and withdrawn.

Claim 34 recites:

A method of refilling a printing cartridge comprising the steps of:
providing a refill station having a cartridge receptacle and a delivery port configured to engage said cartridge when said cartridge is placed in said cartridge receptacle;
reading usage information stored on said cartridge when said cartridge is in said cartridge receptacle;
and replenishing at least two different kinds of consumable substances in said cartridge through said delivery port if said usage information indicates said cartridge has not been used beyond a useful operational life of said cartridge;
wherein a first of said consumable substances is ink or toner.
(emphasis added).

In contrast, Matsumoto only teaches adding an ink or toner to a printing cartridge. Matsumoto does not teach or suggest adding an ink or toner to a cartridge *and* also adding a second different kind of consumable substance other than ink or toner to the cartridge, as recited in claim 34.

As noted, "[a] claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051,

1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. Therefore, for at least this reason, the rejection of claims 34-41 and 43-45 based on Matsumoto should be reconsidered and withdrawn.

Claim 42 recites:

A printing cartridge refilling apparatus comprising:
a supply of consumable substance;
an interface configured for engagement with a used printing cartridge;
a delivery port through which said consumable substance is ejected into a printing cartridge from said supply; and
a computer programmed to read printing cartridge history data from said printing cartridge through said interface;
wherein said computer further comprises a database of information about a plurality of different printing cartridges.
(emphasis added).

In contrast, Matsumoto fails to teach or suggest a computer in a filling apparatus comprising a database of information about a plurality of different printing cartridges, as claimed.

As noted, "[a] claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. Therefore, for at least this reason, the rejection of claim 42 based on Matsumoto should be reconsidered and withdrawn.

Claims 5, 6, 35 and 36 were rejected as obvious under 35 U.S.C. § 103(a) in view of the combined teachings of Matsumoto and U.S. Patent No. 6,366,742 to Reihl et al. As described above, Matsumoto does not teach or suggest all the features of independent claims 1 and 34 for which it was cited. Consequently, for at least this reason, the combined

teachings of Matusmoto and Reihl fail to teach or suggest all the features of claims 5, 6, 35 and 36.

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). Therefore, the rejection of claims 5, 6, 35 and 36 should be reconsidered and withdrawn.

Claims 43-45 and 48 were rejected under § 103(a) in view of the teachings of Matsumoto and U.S. Patent No. 5,898,450 to Ahn.

Independent claim 43 recites:

A printing cartridge comprising:
a first consumable substance container for containing ink or toner;
a second consumable substance container for containing a different consumable substance;
a memory device for containing printing history data; and
a refilling port in fluid communication with said consumable substance containers, said refilling port being selectively operational according to predetermined printing history data parameters stored in said memory device.
(emphasis added)

In contrast, Matsumoto only teaches adding an ink or toner to a printing cartridge. Matsumoto does not teach or suggest a printing cartridge having a first consumable substance container for ink or toner and a second consumable substance container for a different consumable substance, as claimed in claim 43. Likewise, Ahn fails to teach or suggest the claimed first and second consumable substance containers. It also should be noted that the subject matter for which Ahn was cited, the "collection chamber" was deleted from claim 43.

Thus, the combination of Matsumoto and Ahn fails to teach or suggest all the subject matter of claim 43. As noted, "[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d

981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j).

Therefore, the rejection of claims 43-45 should be reconsidered and withdrawn.

The newly added claims presented herein are also thought to recite subject matter that is clearly patentable over the prior art of record. Specifically, the newly added claims are thought to be patentable over Matsumoto and the other prior art of record for at least the same reasons given above with respect to the previously presented independent claims.

For the foregoing reasons, the present application is thought to be clearly in condition for allowance. Accordingly, favorable reconsideration of the application in light of these remarks is courteously solicited. If the Examiner has any comments or suggestions which could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,



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